

Remarks

This paper responds to the Office Action dated September 21, 2005.

Status of claims and subject matter previously found to be allowable. At the time of the September 21, 2005 Office Action, claims 14-21 were pending, of which claims 14 and 19 were independent. The Examiner indicated that claims 15, 20, and 21 would be allowed if claims 15 and 20 were rewritten in independent form. For that reason, claims 15 and 20 have now been rewritten in independent form. (Form PTO-2038 is attached for fee code 1201.) It is requested that claims 15, 20, and 21 now be allowed as indicated by the Examiner.

The independent claims that have not yet been allowed. Independent claims 14 and 19 have been rejected over a newly cited two-way combination of newly cited references US Pat. No. 6,141,355 to Palmer *et alia* ("Palmer"), issued October 31, 2000 and US Pat. No. 6,614,796 to Black *et alia* ("Black"), issued September 2, 2003.

Black is cited for the proposition that a Fibre Channel Arbitrated Loop (FCAL) system can contain a crossbar switch 100 (Fig. 4). (For sake of discussion it will presently be assumed that the crossbar switch 100 of Black fills the role of the "matrix of switches" found in independent claims 14 and 19.) The Examiner admits that nowhere in Black can the Examiner find any hint or suggestion of the other limitations of these claims, such as the connection of a single FCAL input with two or more FCAL outputs. And indeed the undersigned has reviewed Black and is likewise unable to find such a hint or suggestion, let alone such a teaching.

Palmer is cited for a collision-type packet-type system in which a crosspoint switch 40 (Fig. 4A) is configured to pass packets in multicast fashion through a collision-type packet network.

The Examiner expresses, without support, the view that "at the time the invention was made ... it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine Palmer et al. with the Black et al. to obtain the inventions specified in claims 14 and 19." Applicant's attorney disagrees with this view, and motivated by the case of *In Re Ahlert and Kruger*, 165 USPQ 418 (CCPA 1970) applicant's attorney hereby challenges this view and asks whether the Examiner can show support for this view.

What is "the time the invention was made"? This application claims priority *et alia* from Irish patent application number S2000/0711, filed September 7, 2000. As may be seen from the figures of the priority application as well as its written description, the invention was made at least as early as September 7, 2000.

The question then arises as to whether, on September 7, 2000, anyone could have combined Black and Palmer. The answer is "no." On that day, and indeed for more than two years thereafter, Black was secret within the US Patent and Trademark Office pursuant to 37 CFR section 1.14. Likewise on that day, Palmer was secret within the US Patent and Trademark Office. Thus it would have been impossible for anyone, skilled in the art or not, to have combined those two references at the time the invention was made. The earliest date upon which anyone could have combined those two references was September 2, 2003, the date by which both of the references had finally been published.

The references cannot, in any event, be combined. Even if the teachings of Black and Palmer had been available at the time the invention was made, one skilled in the art would not have combined them. One skilled in the art recognizes the important distinction between circuit-switched systems and collision-based packet systems (for example ethernet). With a circuit-switched system there are dedicated connections which persist from the time of a call set-up and a call tear-down (see for example the discussion in Palmer at column 2, lines 34-39). On the other hand with a collision-based packet system, no dedicated connections are used between particular points. Instead, anything

that needs to be communicated is broken up into packets which are routed through the system and which eventually reach their respective destinations.

One skilled in the art will be aware that FCAL is not collision-based. Each device in a fibre channel arbitrated loop has a dedicated connection to each device to which it communicates. Each device in an FCAL emits data only at times that are selected to avoid interfering with data previously (or simultaneously) emitted by any previous device. Collisions do not occur in FCALs. Indeed the very point of the matrix of switches in claims 14 and 19 is to set up dedicated connections.

For those who are familiar with token-ring networks and collision-based ethernet networks, a comparison may be helpful. Just as token-ring is different in kind, not merely in degree, from collision-based ethernet, so is a FCAL of Black different in kind, not merely in degree, from a collision-based network of Palmer. In a classic ethernet network, devices may well emit packets that collide, and the design of ethernet is intended to (and does) deal with collisions. In a token-ring network, on the other hand, no device speaks at the same time as any other device, because only one device can possess the "token" at any instant, and is only permitted to speak at the time it possesses the token. For purposes of the design elements being discussed herein, a FCAL is rather more like a token-ring network than like an ethernet network. The "loop" of FCAL is rather like the "ring" of a token ring.

Palmer teaches the avoidance of setting up dedicated connections (see background thereof, particularly column 2). Thus one skilled in the art of designing dedicated-connection systems such as those of Black would never, it is suggested, turn to Palmer for tips on how to improve a dedicated-connection system.

Thus one skilled in the art would not combine Black with Palmer. Black teaches dedicated connections, and Palmer teaches the avoidance of dedicated connections.

Reconsideration and allowance of claims 14 and 19 is requested.

Respectfully submitted,



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